DMX channel selection (DMX protocol - from software version 1.53)

Normal Mode (24 DMX channels)

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 530°	min. 2.65 s	0..255	00..FF	0..100
2) PAN-fine	High- Pos ... High- Pos + 2.1° (16 Bit)		0..255	00..FF	0..100
3) Tilt-coarse	0 .. 285°	min. 1.8 s	0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1.1° (16 Bit)		0..255	00..FF	0..100
5) Color 1	Open (fast)	Chaser from color to	0..1	00..01	0.2
(fixed)	Open / Color 1 (fast)	color max. 140 BPM	2..3	02..03	1.0
	Color 1 Red 308 (fast)	=> 0,43 s	4..5	04..05	1.8
	Color 1 / Color 2 (fast)		6..7	06..07	2.5
	Color 2 CTC 3200 - 4100 (fast)		8..9	08..09	3.3
	Color 2 / Color 3 (fast)		10..11	0A..0B	4.1
	Color 3 Yellow 601 (fast)		12..13	0C..0D	4.9
	Color 3 / Color 4 (fast)		14..15	0E..0F	5.7
	Color 4 Purple 502 (fast)		16..17	10..11	6.5
	Color 4 / Color 5 (fast)		18..19	12..13	7.3
	Color 5 Orange 306u (fast)		20..21	14..15	8.0
	Color 5 / Color 6 (fast)		22..23	16..17	8.8
	Color 6 Pink 312 (fast)		24..25	18..19	9.6
	Color 6 / Color 7 (fast)		26..27	1A..1B	10.4
	Color 7 Green 206 (fast)		28..29	1C..1D	11.2
	Color 7 / Color 8 (fast)		30..31	1E..1F	12.0
	Color 8 Purple 509 (fast)		32..33	20..21	12.7
	Color 8 / Color 9 (fast)		34..35	22..23	13.5
	Open (fast)		36..63	24..3F	15..25
	Open (slow)	Chaser from color to	64..65	40..41	25.3
	Open / Color 1 (slow)	color max. 70 BPM	66..67	42..43	26.1
	Color 1 Red 308 (slow)	=> 0,86 s	68..69	44..45	26.9
	Color 1 / Color 2 (slow)		70..71	46..47	27.6
	Color 2. CTC 3200 - 4100 (slow)		72..73	48..49	28.4
	Color 2 / Color 3 (slow)		74..75	4A..4B	29.2
	Color 3 Yellow 601 (slow)		76..77	4C..4D	30.0
	Color 3 / Color 4 (slow)		78..79	4E..4F	30.8
	Color 4 Purple 502 (slow)		80..81	50..51	31.6
	Color 4 / Color 5 (slow)		82..83	52..53	32.4
	Color 5 Orange 306u (slow)		84..85	54..55	33.1
	Color 5 / Color 6 (slow)		86..87	56..57	33.9
	Color 6. Pink 312 (slow)		88..89	58..59	34.7
	Color 6 / Color 7 (slow)		90..91	5A..5B	35.5
	Color 7 Green 206 (slow)		92..93	5C..5D	36.3
	Color 7 / Color 8 (slow)		94..95	5E..5F	37.1
	Color 8 Purple 509 (slow)		96..97	60..61	37.8
	Color 8 / Color 9 (slow)		98..99	62..63	38.6
	Open (slow)		100..127	64..7F	40..50
	Color Rotation STOP		128..129	80..81	50.1
	color rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	color rotation, fast-slow, CCW	max. 2,9 turns/sec.	192..253	C0..FD	76..98
	Audio color chaser slow	each 4th sound impulse → new color	254	FE	99

Channel	Function	Time and Value	DMX	HEX	%
	Audio color chaser fast	each sound impulse → new color	255	FF	100
6) Cyan	Color mixing system - Cyan	0 - 100%	0..255	00..FF	0..100
7) Magenta	Color mixing system - Magenta	0 - 100%	0..255	00..FF	0..100
8) Yellow	Color mixing system - Yellow	0 - 100%	0..255	00..FF	0..100
9) Gobo 1	Gobo 1 (open, fast)	Chaser from gobo to gobo max. 100 BPM => 0,6 s	0..7	0..7	0..2.9
(indexed)	Gobo 2 (fast)		8..15	8..F	3..5.9
	Gobo 3 (fast)		16..23	10..17	6..8.9
	Gobo 4 (fast)		24..31	18..1F	9..11.9
	Gobo 5 (fast)		32..39	20..27	12..14.9
	Gobo 6 (fast)		40..47	28..2F	15..17.9
	Gobo 7 (fast)		48..55	30..37	18..20.9
	Gobo 8 (fast)		56..63	38..3F	21..23
	Gobo 1 (open, slow)	Chaser from gobo to gobo max. 40 BPM => 1,51 s	64..71	40..47	24..26.9
	Gobo 2 (slow)		72..79	48..4F	27..29.9
	Gobo 3 (slow)		80..87	50..57	30..33.9
	Gobo 4 (slow)		88..95	58..5F	34..36.9
	Gobo 5 (slow)		96..103	60..67	37..39.9
	Gobo 6 (slow)		104..111	68..6F	40..42.9
	Gobo 7 (slow)		112..119	70..77	43..45.9
	Gobo 8 (slow)		120..127	78..7F	46..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 1.0 turns/sec.	192..253	C0..FD	76..98
	Audio gobo chase, slow	each 4th sound impulse → new gobo	254	FE	99
	Audio gobo chase, fast	each sound impulse → new gobo	255	FF	100
10) Gobo 1	Gobo Position 0 ... 540°		0..127	00..7F	0..49
Posi./Rot	Gobo Rotation STOP		128..129	80..81	50
	Gobo Rotation, slow-fast, CW	min. 2,0 turns/h	130..191	82..BF	51..75
	Gobo Rotation, fast-slow, CCW	max. 3,8 turns/sec.	192..253	C0..FD	76..100
	Audio Gobo Rotation, slow	each 4th sound impulse → new position	254	FE	99
	Audio Gobo Rotation, fast	each sound impulse → new gobo	255	FF	100
11) Gobo 2	Gobo 1 (open, fast)	Chaser from gobo to gobo max. 100 BPM => 0,6 s	0..3	00..03	0..1
(fixed)	Gobo 2 (fast)		4..7	04..07	2..3
	Gobo 3 (fast)		8..11	08..0B	3..4
	Gobo 4 (fast)		12..15	0C..0F	5..6
	Gobo 5 (fast)		16..19	10..13	6..7
	Gobo 6 (fast)		20..23	14..17	8..9
	Gobo 7 (fast)		24..27	18..1B	9..10
	Gobo 8 (fast)		28..31	1C..1F	11..12
	Gobo 9 (fast)		32..35	20..23	13..14
	Gobo 10 (fast)		36..39	24..27	14..15
	Gobo 1 (open, slow)	Chaser from gobo to gobo max. 40 BPM => 1,51 s	64..67	41..43	25..26
	Gobo 2 (slow)		68..71	44..47	27..28
	Gobo 3 (slow)		72..75	48..4B	28..29
	Gobo 4 (slow)		76..79	4C..50	30..31
	Gobo 5 (slow)		80..83	51..53	32..33
	Gobo 6 (slow)		84..87	54..57	33..34
	Gobo 7 (slow)		88..91	58..5B	35..36

Channel	Function	Time and Value	DMX	HEX	%
	Gobo 8 (slow)		92..95	5C..5F	36..37
	Gobo 9 (slow)		96..99	60..63	38..39
	Gobo 10 (slow)		100..103	64..67	39..40
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 1.0 turns/sec.	192..253	C0..FD	76..98
	Audio gobo chase, slow	each 4th sound impulse → new gobo	254	FE	99
	Audio gobo chase, fast	each sound impulse → new gobo	255	FF	100
12) Shutter	Shutter closed		0..15	00..0F	0..6
	Random Strobe (different patterns)		16..31	10..1F	7..11.9
	Strobe Pulse effect, slow - fast	min. frequent 0,7 Hz	32..47	20..2F	12..12.9
	Audio Shutter		48..63	30..3F	13..25
	Strobe effect, slow - fast	max. frequent 10 Hz	64..239	40..EF	26..93
	Shutter open		240..253	F0..FD	94..98
	Shutter open (lamp start)		254..255	FE..FF	99..100
13) Dimmer	Dimmer closed (0%)		0..3	0..3	0..1
	Dimmer 1%...99%	movement time 0,3 sec.	4..251	4..FB	2..98
	Dimmer open (100%)		252..255	FC..FF	99..100
14) Focus	In (near) - out (far)	full distance 1,5 sec.	0..255	0..FF	0..100
15) Zoom	Inside (near) - outside (far)	full distance 1,5 sec.	0..255	0..FF	0..100
16) Frost	Open (0%) - retracted (100%)	full distance 1,5 sec.	0..255	0..FF	0..100
17) Prism	Prism swing out		0..5	00..05	0..2
	Prism position 0 ... 540°		6..129	06..7F	0..50
	Prism rotation stop		130..191	80..BF	51..75
	Prism rotation, slow-fast, CW	min. 1,6 turns/h	192..253	C0..FD	76..100
	Prism rotation, fast-slow, CCW	max. 4,4 turns/sec.	254	FE	99
	Audio prism rotation, slow	each 4th sound impulse → new prism	255	FF	100
18) Iris	Iris open – closed		0..127	00..7F	00..49
	Ascend with Shutter, random		128..143	80..8F	50..56
	Descend with Shutter, random		144..159	90..9F	56..62
	Ascend with Shutter, audio		160..175	A0..AF	63..68
	Descend with Shutter, audio		176..191	B0..BF	69..74
	Ascend with Shutter	slow - fast	192..207	C0..CF	75..81
	Descend with Shutter	slow - fast	208..223	D0..DF	82..87
	Pulse - effect	slow - fast	224..239	E0..EF	88..93
	Ascend - descend effect	slow - fast	240..253	F0..FD	94..99
	Iris open		254..255	FE..FF	100
19) CTO	Color correction filter 3200K	0 - 100%	0..255	00..FF	0..100
20) Effect wheel-swing	Step less swing of the "Motion Wheel"	0 - 100%	0..255	00..FF	0..100
21) Effect wheel	Rotating slow - fast CW		0..127	00..7F	0..49
Posi./Rot	Rotating fast - slow CCW		128...255	80..FF	50..100
22) Special	No Function		0..15	00..0F	0..6
	Gobo1-shake +/- 10° slow – fast	3,5 moves / min. up to 60 moves / max.	16..31	10..1F	7..12
	Gobo1-shake +/- 20° slow – fast	3,5 moves / min. up to 60 moves / max.	32..47	20..2F	13..18
	Gobo1-shake +/- 30° slow – fast	3,5 moves / min. up to 60 moves / max.	48..63	30..3F	19..24

Channel	Function			Time and Value	DMX	HEX	%
	No function				64..111	40..6F	23..43
	Color1-Chaser C / C+1 slow – fast			0.7 BPS ... 2.3 BPS => 1.43 s ... 0.43 s	112..127	70..7F	44..50
	Color1-Chaser C / C+2 slow – fast			0.7 BPS ... 2.0 BPS => 1.43 s ... 0.5 s	128..143	80..8F	51..56
	No function				144..175	90..AF	57..68
	Audio Pan / Tilt slow			each 4th sound impulse → new position	176..191	B0..BF	69..74
	Audio Pan / Tilt fast			each sound impulse → new position	192..207	C0..CF	75..81
	No function				208..223	D0..DF	82..87
	Fan min. as long as temp. < 90°C				224..229	E0..E5	88..90
	Lamp OFF 1			if Shutter channel = closed DMX ´000` (min. 3 sec.)	230..249	E6..F9	92..97
	Lamp OFF 2			if Shutter channel = DMX ´240..253` (min. 3 sec.)	249	F9	97
	Reset 1			Head only (PAN/TILT)	250..253	FA..FC	98..99
	Reset 2			All functions	254..255	FD..FF	100
23) Move-	**No movement**				0	00	0
ment	**Movement**	**Size**	**Phase**				
	PAN	1	0°		01..01	01..01	0.5
		1	90°		02..03	02..03	1.0
		1	180°		04..05	04..05	1.7
		1	270°		06..07	06..07	2.5
	PAN	2	0°		08..09	08..09	3.3
		2	90°		10..11	0A..0B	4.1
		2	180°		12..13	0C..0D	4.9
		2	270°		14..15	0E..0F	5.7
	PAN	3	0°		16..17	11..11	6.5
		3	90°		18..19	12..13	7.3
		3	180°		20..21	14..15	8.0
		3	270°		22..23	16..17	8.8
	PAN	4	0°		24..25	18..19	9.6
		4	90°		26..27	1A..1B	10.4
		4	180°		28..29	1C..1D	11.2
		4	270°		30..31	1E..1F	12
	TILT		size / phase see also PAN		32..63	20..3F	13..25
	PAN / TILT		size / phase see also PAN		64..95	40..5F	26..37
	PAN / TILT (inverse)		size / phase see also PAN		96..127	60..7F	38..50
	Circle		size / phase see also PAN		128..159	80..9F	51..62
	Circle (inverse)		size / phase see also PAN		160..191	A0..BF	63..75
	Lying eight		size / phase see also PAN		192..223	C0..DF	76..87
	Random movement		size see also PAN		224..255	E0..FF	88..100
24) Speed	Pan/Tilt relative movement				0..15	00..0F	0..6
Pan/Tilt	Pan/Tilt slow – fast Use this channel also for the SPEED of the movements above.			Pan Min. 530° = 200 s Pan Max. 530° = 2.65 s Tilt Min. 285° = 110 s Tilt Max. 285° = 1.8 s	16..255	10..FF	7..100

Lamp ON	Shutter open	Channel 12	240..255	F0..FF	94..100
Lamp OFF 1	Special channel Lamp OFF 1 if Shutter channel = closed DMX ´000` (min. 3 sec.)	Channel 22 and Channel 12	230..249 000	6E..9F 00	92..97 000
Lamp OFF 2	Special channel Lamp OFF 2 if Shutter channel = DMX ´240..253` (min. 3 sec.)	Channel 22 and Channel 12	249 240..253	9F F0..FD	97 94..98
Reset 1	Head only (PAN/TILT)	Channel 22	250..253	FA..FC	98..99
Reset 2	All functions	Channel 22	254..255	FD..FF	100

Extended Mode (33 DMX channels / 16 bit)

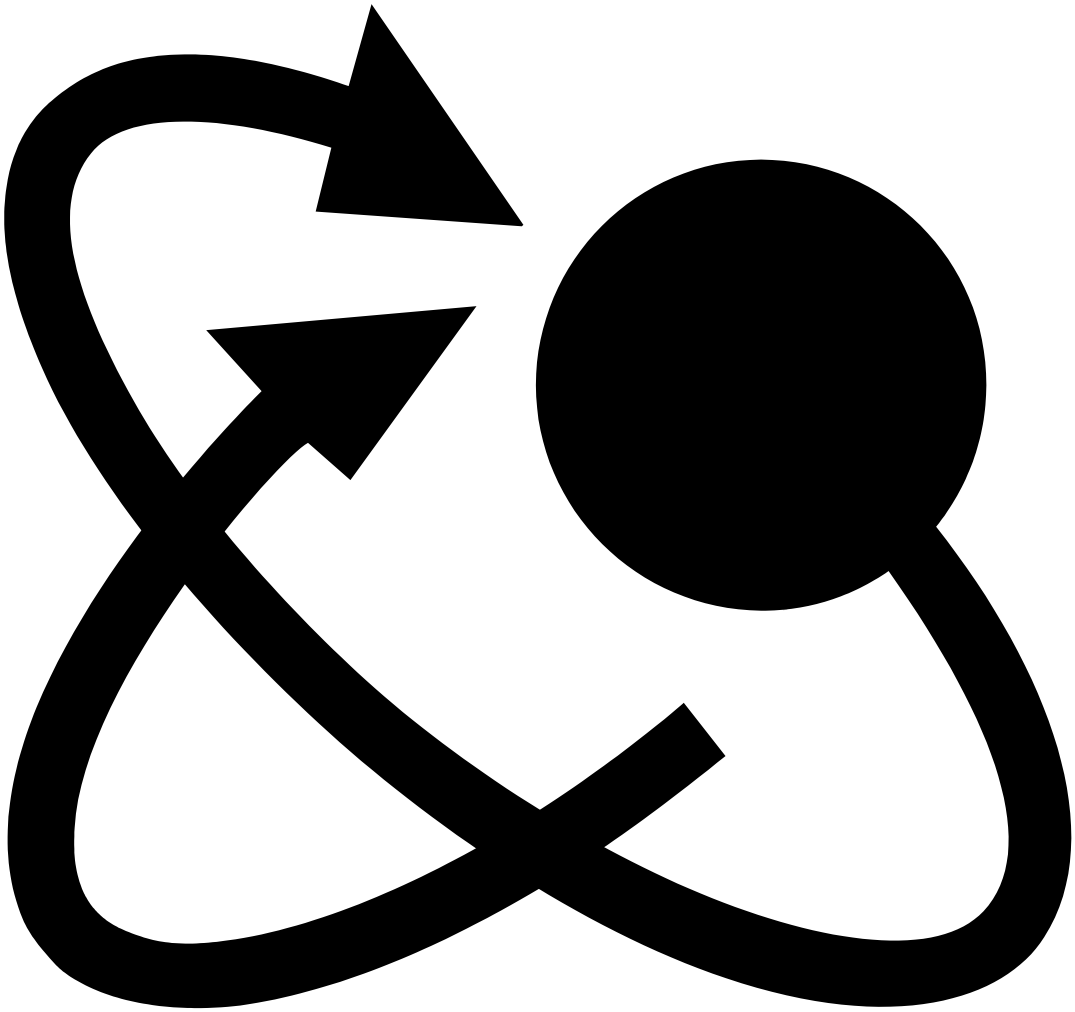
Several function do have a 16 bit precision which uses 2 consecutive DMX channels for the control. The first one is used "as usual" to control functions like Colors, Gobos etc. (see also Normal Mode above). The second one is then used to fine-tune to function in 256 additional steps. How exactly the programming is executed depends now on the DMX controller used. Please refer to its own manual for details.

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 530°	min. 2.65 s	0..255	00..FF	0..100
2) PAN-fine	High- Pos ... High- Pos + 2.1° (16 Bit)		0..255	00..FF	0..100
3) Tilt-coarse	0 .. 285°	min. 1.8 s	0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1.1° (16 Bit)		0..255	00..FF	0..100
5/6) Color 1	Open (fast)	Chaser from color to	0..1	00..01	0.2
(fixed)	Open / Color 1 (fast)	color max. 140 BPM	2..3	02..03	1.0
16 Bit	Color 1 Red 308 (fast)	=> 0,43 s	4..5	04..05	1.8
	Color 1 / Color 2 (fast)		6..7	06..07	2.5
	Color 2 CTC 3200 - 4100 (fast)		8..9	08..09	3.3
	Color 2 / Color 3 (fast)		10..11	0A..0B	4.1
	Color 3 Yellow 601 (fast)		12..13	0C..0D	4.9
	Color 3 / Color 4 (fast)		14..15	0E..0F	5.7
	Color 4 Purple 502 (fast)		16..17	10..11	6.5
	Color 4 / Color 5 (fast)		18..19	12..13	7.3
	Color 5 Orange 306u (fast)		20..21	14..15	8.0
	Color 5 / Color 6 (fast)		22..23	16..17	8.8
	Color 6 Pink 312 (fast)		24..25	18..19	9.6
	Color 6 / Color 7 (fast)		26..27	1A..1B	10.4
	Color 7 Green 206 (fast)		28..29	1C..1D	11.2
	Color 7 / Color 8 (fast)		30..31	1E..1F	12.0
	Color 8 Purple 509 (fast)		32..33	20..21	12.7
	Color 8 / Color 9 (fast)		34..35	22..23	13.5
	Open (fast)		36..63	24..3F	15..25
	Open (slow)	Chaser from color to	64..65	40..41	25.3
	Open / Color 1 (slow)	color max. 70 BPM	66..67	42..43	26.1
	Color 1 Red 308 (slow)	=> 0,86 s	68..69	44..45	26.9
	Color 1 / Color 2 (slow)		70..71	46..47	27.6
	Color 2 CTC 3200 - 4100 (slow)		72..73	48..49	28.4
	Color 2 / Color 3 (slow)		74..75	4A..4B	29.2
	Color 3 Yellow 601 (slow)		76..77	4C..4D	30.0

Channel	Function	Time and Value	DMX	HEX	%
	Color 3 / Color 4 (slow)		78..79	4E..4F	30.8
	Color 4 Purple 502 (slow)		80..81	50..51	31.6
	Color 4 / Color 5 (slow)		82..83	52..53	32.4
	Color 5 Orange 306u (slow)		84..85	54..55	33.1
	Color 5 / Color 6 (slow)		86..87	56..57	33.9
	Color 6 Pink 312 (slow)		88..89	58..59	34.7
	Color 6 / Color 7 (slow)		90..91	5A..5B	35.5
	Color 7 Green 206 (slow)		92..93	5C..5D	36.3
	Color 7 / Color 8 (slow)		94..95	5E..5F	37.1
	Color 8 Purple 509 (slow)		96..97	60..61	37.8
	Color 8 / Color 9 (slow)		98..99	62..63	38.6
	Open (slow)		100..127	64..7F	40..50
	Color Rotation STOP		128..129	80..81	50.1
	color rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	color rotation, fast-slow, CCW	max. 2,9 turns/sec.	192..253	C0..FD	76..98
	Audio color chaser slow	each 4th sound impulse → new color	254	FE	99
	Audio color chaser fast	each sound impulse → new color	255	FF	100
7/8) Cyan ***16 Bit***	Color mixing system - Cyan	0 - 100%	0..255	00..FF	0..100
9/10) Magenta ***16 Bit***	Color mixing system - Magenta	0 - 100%	0..255	00..FF	0..100
11/12) Yellow ***16 Bit***	Color mixing system - Yellow	0 - 100%	0..255	00..FF	0..100
13) Gobo 1	Gobo 1 (open, fast)	Chaser from gobo to gobo max. 100 BPM => 0,6 s	0..7	0..7	0..2.9
(indexed)	Gobo 2 (fast)		8..15	8..F	3..5.9
	Gobo 3 (fast)		16..23	10..17	6..8.9
	Gobo 4 (fast)		24..31	18..1F	9..11.9
	Gobo 5 (fast)		32..39	20..27	12..14.9
	Gobo 6 (fast)		40..47	28..2F	15..17.9
	Gobo 7 (fast)		48..55	30..37	18..20.9
	Gobo 8 (fast)		56..63	38..3F	21..23
	Gobo 1 (open, slow)	Chaser from gobo to gobo max. 40 BPM => 1,51 s	64..71	40..47	24..26.9
	Gobo 2 (slow)		72..79	48..4F	27..29.9
	Gobo 3 (slow)		80..87	50..57	30..33.9
	Gobo 4 (slow)		88..95	58..5F	34..36.9
	Gobo 5 (slow)		96..103	60..67	37..39.9
	Gobo 6 (slow)		104..111	68..6F	40..42.9
	Gobo 7 (slow)		112..119	70..77	43..45.9
	Gobo 8 (slow)		120..127	78..7F	46..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 1.0 turns/sec.	192..253	C0..FD	76..98
	Audio gobo chase, slow	each 4th sound impulse → new gobo	254	FE	99
	Audio gobo chase, fast	each sound impulse → new gobo	255	FF	100
14/15) Gobo 1	Gobo Position 0 ... 540°		0..127	00..7F	0..49
Posi./Rot	Gobo Rotation STOP		128..129	80..81	50
16 Bit	Gobo Rotation, slow-fast, CW	min. 2,0 turns/h	130..191	82..BF	51..75
	Gobo Rotation, fast-slow, CCW	max. 3,8 turns/sec.	192..253	C0..FD	76..100
	Audio Gobo Rotation, slow	each 4th sound impulse → new position	254	FE	99

Channel	Function	Time and Value	DMX	HEX	%
	Audio Gobo Rotation, fast	each sound impulse → new gobo	255	FF	100
16) Gobo 2 (fixed)	Gobo 1 (open, fast)	Chaser from gobo to gobo max. 100 BPM => 0,6 s	0..3	00..03	0..1
	Gobo 2 (fast)		4..7	04..07	2..3
	Gobo 3 (fast)		8..11	08..0B	3..4
	Gobo 4 (fast)		12..15	0C..0F	5..6
	Gobo 5 (fast)		16..19	10..13	6..7
	Gobo 6 (fast)		20..23	14..17	8..9
	Gobo 7 (fast)		24..27	18..1B	9..10
	Gobo 8 (fast)		28..31	1C..1F	11..12
	Gobo 9 (fast)		32..35	20..23	13..14
	Gobo 10 (fast)		36..39	24..27	14..15
	Gobo 1 (open, slow)	Chaser from gobo to gobo max. 40 BPM => 1,51 s	64..67	41..43	25..26
	Gobo 2 (slow)		68..71	44..47	27..28
	Gobo 3 (slow)		72..75	48..4B	28..29
	Gobo 4 (slow)		76..79	4C..50	30..31
	Gobo 5 (slow)		80..83	51..53	32..33
	Gobo 6 (slow)		84..87	54..57	33..34
	Gobo 7 (slow)		88..91	58..5B	35..36
	Gobo 8 (slow)		92..95	5C..5F	36..37
	Gobo 9 (slow)		96..99	60..63	38..39
	Gobo 10 (slow)		100..103	64..67	39..40
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 1.0 turns/sec.	192..253	C0..FD	76..98
	Audio gobo chase, slow	each 4th sound impulse → new gobo	254	FE	99
	Audio gobo chase, fast	each sound impulse → new gobo	255	FF	100
17) Shutter	Shutter closed		0..15	00..0F	0..6
	Random Strobe (different patterns)		16..31	10..1F	7..11.9
	Strobe Pulse effect, slow - fast	min. frequent 0,7 Hz	32..47	20..2F	12..12.9
	Audio Shutter		48..63	30..3F	13..25
	Strobe effect, slow - fast	max. frequent 10 Hz	64..239	40..EF	26..93
	Shutter open		240..253	F0..FD	94..98
	Shutter open (lamp start)		254..255	FE..FF	99..100
18/19) Dimmer	Dimmer closed (0%)		0..3	0..3	0..1
16 Bit	Dimmer 1%...99%	movement time 0,3 sec.	4..251	4..FB	2..98
	Dimmer open (100%)		252..255	FC..FF	99..100
20) Focus	In (near) - out (far)	full distance 1,5 sec.	0..255	0..FF	0..100
21) Zoom	Inside (near) - outside (far)	full distance 1,5 sec.	0..255	0..FF	0..100
22) Frost	Open (0%) - retracted (100%)	full distance 1,5 sec.	0..255	0..FF	0..100
23/24) Prism	Prism swing out		0..5	00..05	0..2
16 Bit	Prism position 0 ... 540°		6..129	06..7F	0..50
	Prism rotation stop		130..191	80..BF	51..75
	Prism rotation, slow-fast, CW	min. 1,6 turns/h	192..253	C0..FD	76..100
	Prism rotation, fast-slow, CCW	max. 4,4 turns/sec.	254	FE	99
	Audio prism rotation, slow	each 4th sound impulse → new prism	255	FF	100
25/26) Iris	Iris open – closed		0..127	00..7F	00..49
16 Bit	Ascend with Shutter, random		128..143	80..8F	50..56
	Descend with Shutter, random		144..159	90..9F	56..62

Channel	Function			Time and Value	DMX	HEX	%
	Ascend with Shutter, audio				160..175	A0..AF	63..68
	Descend with Shutter, audio				176..191	B0..BF	69..74
	Ascend with Shutter			slow - fast	192..207	C0..CF	75..81
	Descend with Shutter			slow - fast	208..223	D0..DF	82..87
	Pulse - effect			slow - fast	224..239	E0..EF	88..93
	Ascend - descend effect			slow - fast	240..253	F0..FD	94..99
	Iris open				254..255	FE..FF	100
27/28) CTO ***16 Bit***	Color correction filter 3200K			0 - 100%	0..255	00..FF	0..100
29) Effect wheel/swing	Step less swing of the "Motion Wheel"			0 - 100%	0..255	00..FF	0..100
30) Effect wheel	Rotating slow - fast CW				0..127	00..7F	0..49
Posi./Rot	Rotating fast - slow CCW				128...255	80..FF	50..100
31) Special	No Function				0..15	00..0F	0..6
	Gobo1-shake +/- 10° slow – fast			3,5 moves / min. up to 60 moves / max.	16..31	10..1F	7..12
	Gobo1-shake +/- 20° slow – fast			3,5 moves / min. up to 60 moves / max.	32..47	20..2F	13..18
	Gobo1-shake +/- 30° slow – fast			3,5 moves / min. up to 60 moves / max.	48..63	30..3F	19..24
	No function				64..111	40..6F	23..43
	Color1-Chaser C / C+1 slow – fast			0.7 BPS ... 2.3 BPS => 1.43 s ... 0.43 s	112..127	70..7F	44..50
	Color1-Chaser C / C+2 slow – fast			0.7 BPS ... 2.0 BPS => 1.43 s ... 0.5 s	128..143	80..8F	51..56
	No function				144..175	90..AF	57..68
	Audio Pan / Tilt slow			each 4th sound impulse → new position	176..191	B0..BF	69..74
	Audio Pan / Tilt fast			each sound impulse → new position	192..207	C0..CF	75..81
	No function				208..223	D0..DF	82..87
	Fan min. as long as temp. < 90°C				224..229	E0..E5	88..90
	Lamp OFF 1			if Shutter channel = closed DMX ´000` (min. 3 sec.)	230..249	E6..F9	92..97
	Lamp OFF 2			if Shutter channel = DMX ´240..253` (min. 3 sec.)	249	F9	97
	Reset 1			Head only (PAN/TILT)	250..253	FA..FC	98..99
	Reset 2			All functions	254..255	FD..FF	100
32) Move-	**No movement**				0	00	0
ment	**Movement**	**Size**	**Phase**				
	PAN	1	0°		01..01	01..01	0.5
		1	90°		02..03	02..03	1.0
		1	180°		04..05	04..05	1.7
		1	270°		06..07	06..07	2.5
	PAN	2	0°		08..09	08..09	3.3
		2	90°		10..11	0A..0B	4.1
		2	180°		12..13	0C..0D	4.9
		2	270°		14..15	0E..0F	5.7
	PAN	3	0°		16..17	11..11	6.5
		3	90°		18..19	12..13	7.3
		3	180°		20..21	14..15	8.0

Channel	Function			Time and Value	DMX	HEX	%
		3	270°		22..23	16..17	8.8
	PAN	4	0°		24..25	18..19	9.6
		4	90°		26..27	1A..1B	10.4
		4	180°		28..29	1C..1D	11.2
		4	270°		30..31	1E..1F	12
	TILT		size / phase see also PAN		32..63	20..3F	13..25
	PAN / TILT		size / phase see also PAN		64..95	40..5F	26..37
	PAN / TILT (inverse)		size / phase see also PAN		96..127	60..7F	38..50
	Circle		size / phase see also PAN		128..159	80..9F	51..62
	Circle (inverse)		size / phase see also PAN		160..191	A0..BF	63..75
	Lying eight		size / phase see also PAN		192..223	C0..DF	76..87
	Random movement		size see also PAN		224..255	E0..FF	88..100
33) Speed	Pan/Tilt relative movement				0..15	00..0F	0..6
Pan/Tilt	Pan/Tilt slow – fast Use this channel also for the SPEED of the movements above			Pan Min. 530° = 200 s Pan Max. 530° = 2.65 s Tilt Min. 285° = 110 s Tilt Max. 285° = 1.8 s	16..255	10..FF	7..100

Lamp ON	Shutter open	Channel 17	240..255	F0..FF	94..100
Lamp OFF 1	Special channel Lamp OFF 1 if Shutter channel = closed DMX ´000` (min. 3 sec.)	Channel 31 and Channel 17	230..249 000	6E..9F 00	92..97 000
Lamp OFF 2	Special channel Lamp OFF 2 if Shutter channel = DMX ´240..253` (min. 3 sec.)	Channel 31 and Channel 17	249 240..253	9F F0..FD	97 94..98
Reset 1	Head only (PAN/TILT)	Channel 31	250..253	FA..FC	98..99
Reset 2	All functions	Channel 31	254..255	FD..FF	100